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#### ABSTRACT

This paper describes a study partially supported by a grant from the Institute on Race and Ethnicity of the University of Wisconsin (UW) System. The study was designed to examine the major factors, including distance teaching and learning and relevant technological innovations, that affect adult education for ethnic minorities; for the purpose of this study, ethnic minorities include all African, Asian, Hispanic, and Native American adults. Data sets provided by the National Center for Education Statistics (NCES) were used to accomplish three objectives: (1) to investigate the extent and scope to which the minority groups are served by adult educational establishments, including the specific needs and existing barriers for minority adults to obtain distance education; (2) to examine the role and contributions of distance teaching and learning and relevant educational technologies in facilitating the access of adult education by ethnic minority groups; and (3) to stimulate further research interest and draw broader attention by sharing the initial results with scholars, policy-makers, and the general public, regarding issues about distance education, adult education, and minority education. Charts and graphics presenting research results are not included. (Author/DLS)

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# The Role of Distance Education and Major Factors That Influence Minority Adults' Participation in Educational Programs

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# **Abstract**

This study has been partially supported by a grant from the Institute on Race and Ethnicity of the UW System for examining the major factors, including distance teaching and learning and relevant technological innovations, that affect adult education for ethnic minorities. Data sets provided by the National Center for Education Statistics (NCES) were used to accomplish three objectives: First, to investigate the extent and scope to which the minority groups are served by adult educational establishments, including the specific needs and existing barriers for minority adults to obtain education; Second, to examine the role and contributions of distance teaching and learning and relevant educational technologies in facilitating the access of adult education by ethnic minority groups; Finally, to stimulate further research interest and draw broader attention by sharing the initial results with scholars, policy-makers, and the general public regarding issues about distance education, adult education and minority education.

# **Background and Introduction**

During the years of 1991, 1993, 1995, and 1996, the National Center for Education Statistics (NCES) collected data through a series of national household education surveys (NHES), of which, an important dimension concerns the various activities, facilities, and environment of adult learning. In the surveys conducted in 1991 and 1995 respectively, components were added focusing on a wide range of adult education experiences. A collection of rich information was gathered from nationally sampled participants and non-participants of different adult education programs.

NHES is a telephone survey of the noninstitutionalized civilian population of the United States. Households were selected by using random-digit-dialing methods, and data were collected using computer-assisted telephone interviewing. The sample size is 25,137 cases for 1991 survey and 78,888 cases for 1995 survey, involving both participants and non-participants of adult education programs. One of the goals for NHES survey was to ensure a reliable estimates for subdomains defined by race and ethnicity. Estimates by race and ethnicity were key in developing the sample size. Blacks and Hispanics were sampled at



higher rates to improve the reliability of estimates for these groups (NCES report, May 1997).

In recent years, fast technology advancement has made distance education and technology-assisted instructions an unavoidable phenomenon in all aspects of education programs, including adult education. In 1995, NCES added a group of questions which are directly asked the survey participants about whether they learned knowledge or preformed specific tasks by using computer instruction, by interactive video instruction without an instructor present; or by receiving instructions through telephone. In addition, the NHES survey coordinators informed the researchers of this article that they realize the increasing importance of distance education in adult education. In the NCES's planned 1999 NHES survey, distance education related questions will become a major section.

Linking the distance learning methods the survey participants adopted, the available data sets contain detailed rich information of the subjects relevant to this study, including ethnic background, age, gender, family economic status, the whole family's education related issues, type of adult education programs participated, courses taken, instructional methods involved (computer-assisted, video instruction, etc.), approaches used to participate (by directly going to campus of an institution, or through certain kind of distance education facilities, such as by mail, radio/television, and other means/technologies), intensity of the study (part/full time and attending frequency), reasons for taking the course(s), specific barriers to participation in adult education, and results/achievements. We have obtained permission from NCES to use the data in this study.

### **Research Results**

# **Relevant Literatures**

An extensive literature review reveals basic patterns of current research on ethnic minorities and their access to education. To a large extent, most studies on ethnic minorities stress the changing demographic structures and the need to be aware of the developing trend and impact on the society. Echoes are repeated among these studies that the traditionally classified minority groups are playing an increasingly prominent role in national economic prosperity and social stability. Meanwhile, accesses to education have been inadequate for minorities, especially among the adults, while their actual needs are growing continually. In this particularly crucial area, efforts of empirical research have not kept pace in terms of both quantity and scope at the general level, and even less in some specific aspects, such as improving minority access by taking advantage of today's delivering technologies.

Eight years ago, Jan Jackson insightfully pointed out that adult education in America is urgently in need of a much improved agenda as we are quickly approaching the twenty-first century (Jackson 1989). The society and the general public can benefit in multiple ways by becoming more aware of the special needs in a changing multicultural environment. It should be no surprise that what defined as minority groups today will together constitute the majority population in the foreseeable future. Meanwhile, insufficient access to education continues contributing to the limited job and life opportunities, consequent poverty, and various problems of the disadvantaged minority (Brazziel 1993; Knox 1993).

Other related studies report that generally educational services to ethnic minorities are deficient and the situation is most detrimental for the adult population. The lack of a



national action to vigorously involve ethnic minorities in educational programs can be attributed to the low status of adult education, shortsightedness, biases or discrimination, and shortage of financial resources (Barrera 1994; Cassara 1991). Research findings proposed various challenges for the adult education programs in the United States to tackle in order to better serve the entire society by giving more attention to minority issues. To start with, the society need to realize that it serves the whole society better to replace the melting pot concept with cultural pluralism. Thus, persons from various backgrounds can have more appreciation of each other without forfeiting their cultural heritage. Accordingly, more cross-cultural education is necessary for all individuals to have a better understanding of each other's differences. Another challenge refers to the formulation and implementation of a national policy to provide pertinent, fundamental, and accessible educational opportunities for minority adults to make educational decisions and to empower themselves. Still another critical challenge is about establishing and maintaining dependable financing resources in a time of economic crisis, and so on (Cassara 1991).

Research continues documenting strong evidence that education, especially adult education, may provide the key to unlock and develop the under-developed and under-utilized human potentials, and eventually, get out of the impasse of impoverishment and improve the despaired situation of powerlessness. Education is responsible and capable of responding to the emerging diversity of human needs and the changing world of work. Thanks to the invaluable resources of educational establishment, the society is blessed with all the facilities for effectively reaching all individuals regardless of their age, gender, economic status, and racial background (Jackson 1989). The remarkable penetration and expansion of distance education in all levels of educational institutions have continually improved the capacity of knowledge delivery and learning efficiency. Accelerating technological advancement has greatly strengthened the institution, expanding its horizons and opening new paths with ample resources at affordable costs. Constant educational innovations, combined with the continually improved campus infrastructure, promise the most optimum learning results with the flexibility of time, location, approach, and size of audience. The literature shows that this new horizon bring new promises and encouragement to adult learners. As some of the most recent research reveals, the non-traditional students, often the minority work force members, are highly motivated for degree programs provided through by distance learning (Manzo 1997; Parrott 1994; Portway & Lane 1994; Withrow 1997).

There is an urgent need to gain relevant in-depth new knowledge in the most fundamental aspects of distance education to answer such practical questions as: Who are the current and prospective learners/users of the various kinds of distance education facilities? What are their needs and expectations in the context of fast changing socio-economic-technical background? What are the trends, directions, and changes of development of course demands and capacity of offerings from remote sites? It is therefore both necessary and plausible to devote special efforts to promote minority education for the well-being of the whole society with a long-term commitment and sharp vision into the future. As the existing research indicates, there is an apparent gap between the fast development of distance teaching and learning systems, programs, curriculum and course offerings and a good understanding of the overall structure, scope, key features, and the trend of development and potentials instructional technology applications in remote modes of teaching and learning.



As a result of the national education goals and the concern about America's ability to compete in a global economy, there has been a heightened interest in enhancing and improving access to adult learning, with considerable amount of attention on minority education as a result of the dramatic demographic changes. Meanwhile, the proportion of public funding for education is decreasing, which makes it not necessary but imperative to study the role of distance education technology advancement. Next important agenda in order is the increasing demand for effective management of postsecondary education relying on information from solid empirical data for decision-making and for guidance of innovative teaching and learning activities. Based on the specific needs of adult learners, human being's teaching and learning would see the remarkable penetration and expansion of distance education in all levels of educational institutions. Constant educational innovations, combined with the continually improved campus infrastructure, promise the most optimum learning results with the flexibility of time, location, approach, and size of audience.

# Methodology

The National Household Education Survey series contain rich information about educational background, language capabilities, apprenticeship, employment conditions, job related experience and activities, and household characteristics of the adult population. Such information is available and largely consistently collected in multiple years. This paper focuses on the traditionally under-represented minority adults and the relevance of distance education facilities to their access to, and success in, formal education. For the purpose of this study, ethnic minority include all African, Asian, Hispanic and Native American adults. Key variables have been carefully selected and/or constructed while the relevant cases are divided into subgroupings for detailed examination and comparison.

Both descriptive and inferential statistics are employed for data analysis. Basic demographic characteristics are summarized using statistical charts and tables for simple presentation, comparison and elaboration. Factor analysis and cluster analysis are used to further explore the relationship among variables and to identify relevant underlying structures. In addition, canonical analysis are useful to examine the relationship between the two main sets of variables: adult education experiences and distance education facilities. A major proportion of the data analysis is performed using the SPSS, SAS and other statistical packages available on our IBM mainframe computer and workstations running the Windows version of applications. The results will be presented at the conference by charts and graphics.

The principle investigators focus their research attention on four areas. First, the course-taking formats and learning activities of adult learners, e.g., whether they take the courses by mail, telephone, television, radio, newspaper, computer or interactive videos. Second, the reasons the adult learners decide to take the courses: to improve, advance, or keep up to date on their current job, to train for a new job or a new career, to improve their basic reading, writing, or math skills, to meet a requirement for a diploma, degree, or certificate of completion, or for a personal, family, social reasons, or for any other reasons. Third, the barriers which have kept the adult learners from participating in the required adult education programs: e.g. work schedule, meeting times of classes, cost of classes, location of classes, lack of transportation to classes, lack of child care, miscellaneous family responsibilities, lack of information about available classes, classes of interest are not offered, etc. Fourth, the types of courses they are taking: e.g., adult basic skills and general education



development preparation classes, English as a second language instruction, courses taken toward college degrees or vocational or technical certificate, apprenticeship programs, career or job-related courses, etc.

With the focused aim on studying the role of distance education delivery approaches, the researchers studied the relationship between the formats the adult learners take courses and their specific barriers; to examine whether distance education delivery formats have any significant impacts on their participation patterns; to examine the relationship between their needs and their participation patterns; and to compare whether the variable of ethnicity has any significant impact on their adult education activities.

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# **Autobiographical Sketches**

**Dr. Deming Wang** is currently the Director of Computer and Media Services at Alma College, MI. He received his doctorate from the University of Minnesota-Twin Cities, with specialization in computer and information technology applications in the social sciences, statistical programming, and data management. He has over ten years of college level



teaching experience in data analysis, research methodology, and computer systems and applications.

**Dr. Richard Lee** is the Dean of Graduate Studies, Research and Continuing Adult Education and a Professor of Special Education at the current campus. He holds a Ph.D. in Special Education and Rehabilitative Clinical Child Psychology from the University of Illinois at Urbana-Champaign (1979) and a masters of science (1976) and a bachelor of science (1975), both in Educational Psychology (Human Learning and Child Development emphases), from the University of Wisconsin-Milwaukee. The Dean is the author of five books and numerous research monographs, articles and professional papers reflecting the results of studies that employed a wide range of experimental and survey research methodologies.

**Dr. Chunju Chen** is the Director of Institutional Research. Both her master and Ph.D. of Vocational and Technical Education were obtained from the University of Minnesota. Her daily job responsibilities involve a wide range of quantitative and quantitative research skills. She has presented at numerous professional conferences on adult education and extension. Her paper on perceptions of the priorities of Minnesota Extension Service's mission received the "Outstanding Research Award" from the Annual Central Region Research Conference of American Association for Agricultural Education.

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